

**COURSE NUMBER:** FHWA-NHI-152054**COURSE TITLE:** Introduction to Urban Travel Demand Forecasting

The hosting organization is responsible for providing MS-DOS microcomputers with color graphics, color monitors and at least 10 MB hard disk space. There should be no more than two participants per computer station.

This is a 4-day introductory course in travel demand forecasting. Through classroom lecture and interactive workshops, the course covers the traditional four-step planning process of trip generation, trip distribution, mode choice and traffic assignment. It also includes presentations on the development of land use forecasts, network and zone structures, and use of geographic information systems. The course also includes software applications to problems previously solved manually to reinforce the concepts taught in the classroom.

The course is offered in the field upon request and is periodically sponsored by the FHWA Resource Center.

**OUTCOMES:**

Upon completion of the course, participants will be able to:

- Identify the principles of trip generation, trip distribution, mode choice, and traffic assignment
- Apply the input data necessary for each of the models
- Illustrate the significance of the outputs and results of travel demand forecasting models
- Describe the role of urban transportation planning in decision making

**TARGET AUDIENCE:**

Relatively new Federal, State, and local planners who wish to gain a better understanding of the principles and techniques of travel demand forecasting. Computer experience is required.

**FEE:** \$530 Per Participant

**LENGTH:** 4.0 Days (CEU: 2.4 Units)

**CLASS SIZE:** Minimum: 20; Maximum: 30

**NHI Training Program Manager:** Mila Plosky • (703) 235-0527 • [mila.plosky@fhwa.dot.gov](mailto:mila.plosky@fhwa.dot.gov)

**Technical Information:** Michael Culp • (202) 366-9229 • [michael.culp@fhwa.dot.gov](mailto:michael.culp@fhwa.dot.gov)

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innovation, leadership, and public service.



**COURSE NUMBER:** FHWA-NHI-152069

**COURSE TITLE:** Metropolitan Transportation Planning

This course provides a general introduction and overview of the metropolitan transportation planning process, underscoring its relationship to informed decision making. Aspects covered include key elements of the planning process; planning requirements; visioning, goals, objectives and measures of effectiveness; program and project development; alternatives and tools for their analysis.

**OUTCOMES:**

Upon completion of the course, participants will be able to:

- Explain why the metropolitan transportation planning process exists and why it is important
- Identify the requirements of the metropolitan transportation planning process and describe the products
- Identify the players in the process and describe their roles and responsibilities
- Distinguish among vision, goals, objectives, and measures of effectiveness (MOEs) and describe the proper use of each
- Explain how to identify transportation needs and problems and how to analyze and evaluate alternative strategies
- Recognize the components of the transportation plan and the transportation improvement program
- Explain the relationship between planning and project development

**TARGET AUDIENCE:**

Planning, transportation planning, programming, or project development staff working or participating in the metropolitan transportation planning process. These include participants from metropolitan planning organizations, State or local departments of transportation, transit agencies, or the Federal DOT. In addition, Federal or State resource and regulatory agencies, (e.g., EPA, Army Corps of Engineers, US Coast Guard, Fish And Wildlife Service, or Park Service, etc.).

**FEE:** \$400 Per Participant

**LENGTH:** 3.0 Days (CEU: 1.8 Units)

**CLASS SIZE:** Minimum: 20; Maximum: 35

**NHI Training Program Manager:** Mila Plosky • (703) 235-0527 • [mila.plosky@fhwa.dot.gov](mailto:mila.plosky@fhwa.dot.gov)

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See the inside front cover of the catalog for a list of NHI contacts.

## **COURSE NUMBER:** FHWA-NHI-152071

### **COURSE TITLE:** Estimating Regional Mobile Source Emissions

The transportation conformity provisions of Clean Air Act Amendments of 1990 (CAAA) and planning provisions of the Transportation Equity Act for the 21st Century (TEA-21) require areas that violate the National Ambient Air Quality Standards (NAAQS) to demonstrate that through the transportation conformity process, transportation investments have air quality impacts consistent with the clean air goal of the State Implementation Plan (SIP). Estimating the amount of mobile source emissions is a crucial part of this process. Metropolitan planning organizations (MPOs) and State departments of transportation (DOTs) have the responsibility of creating mobile source emissions estimates to support transportation conformity determinations in areas that violate NAAQS. These emissions estimates are based on travel demand models, highway performance monitoring system (HPMS) data, and emission rate models. In addition, planners from air agencies are responsible for developing mobile source emissions inventories based on a similar set of assumptions and techniques. It is in the interest of the MPOs and DOTs as well as air agencies to perform this analysis using best practice analysis techniques. The focus of this training course is to develop the skills of planners and practitioners responsible for estimating mobile source emissions so that they can incorporate these techniques their areas of practice. This course has been developed in coordination with the US Environmental Protection Agency (EPA).

#### **OUTCOMES:**

Upon completion of the course, participants will be able to:

- Develop estimates of vehicle miles traveled (VMT) by speed
- Develop MOBILE 6 emissions factors
- Develop regional emissions estimates
- Describe techniques to estimate emission benefits of selected transportation control measures (TCMs)

#### **TARGET AUDIENCE:**

Participants should have one to three years of experience in travel demand forecasting, conformity or air quality analysis, or have completed FHWA-NHI-152054 Introduction to Travel Demand Forecasting and/or the National Transit Institute's Introduction to Transportation/Air Quality Conformity course. This course is targeted to transportation planning staff from State DOTs and MPOs; staff from other governmental agencies who are responsible for developing mobile source emissions estimates to support conformity determinations; FHWA, FTA, and EPA staff involved in the conformity process as it relates to travel demand forecasting and mobile source emissions estimates; transit operators who participate in developing mobile source emissions estimates; and consultants who are involved in this field.

**FEE:** \$460 Per Participant

**LENGTH:** 3.5 Days (CEU: 2.1 Units)

**CLASS SIZE:** Minimum: 20; Maximum: 30

**NHI Training Program Manager:** Mila Plosky • (703) 235-0527 • [mila.plosky@fhwa.dot.gov](mailto:mila.plosky@fhwa.dot.gov)

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## **COURSE NUMBER:** FHWA-NHI-152072

### **COURSE TITLE:** Highway Program Financing



This course covers the various aspects of Federal-aid highway financing unique to the FHWA program. Topics include, but are not limited to the content and policy implication of authorizing and appropriating legislation; the way Federal-aid highway funds are distributed to the States, including discussion of contract authority, apportionment and allocation, deductions, earmarking, transferability, and obligation; the effect of policy and budget considerations on the use of Federal-aid funds, especially as manifested through obligation limitations; the operation of the Highway Trust Fund and its significance to the funding level for the Federal-Aid Highway Program.

#### **OUTCOMES:**

Upon completion of the course, participants will be able to:

- Describe the flow of Federal financing from authorization to reimbursement
- Explain authorization, appropriation, apportionment, allocation and obligation limitation
- Discuss the impact contract authority and obligation limitation have on the use of Federal funds
- Explain how the Federal budgetary process applies to the Federal-aid Highway Program
- Describe the significance of the Highway Trust Fund to the funding levels for the Federal-aid Highway Program

#### **TARGET AUDIENCE:**

Federal, State, regional and local government employees, as well as contractors and others from the private sector interested in the the process by which the Federal-aid Highway program is authorized and how the funds are distributed. We encourage a mix of participants at each session.

**FEE:** \$270 Per Participant

**LENGTH:** 2.0 Days (CEU: 1.2 Units)

**CLASS SIZE:** Minimum: 20; Maximum: 40

**NHI Training Program Manager:** Mila Plosky • (703) 235-0527 • [mila.plosky@fhwa.dot.gov](mailto:mila.plosky@fhwa.dot.gov)

**Technical Information:** Bob Meredith • (202) 366-6786 • [robert.meredith@fhwa.dot.gov](mailto:robert.meredith@fhwa.dot.gov)



Ready to request a course? Please complete the On-Site Course Request Form (FWHA Form 1530) located in the back of the catalog.